

# 4x5" VIEW CAMERA

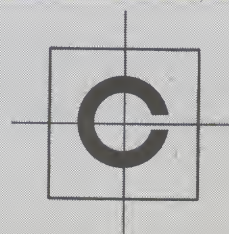
*for industrial, portrait and commercial photography*

HORIZONTAL SWINGS  
VERTICAL SWINGS  
HORIZONTAL SLIDE  
RISING-FALLING FRONT

## Calumet

MANUFACTURING COMPANY

6550 N. CLARK ST. CHICAGO, ILL. 60626





# Why... professional photographers prefer the view camera

Check this year's prize winning professional photographs. Or thumb through any fashion magazine and glance at the illustrations. Chances are, seven times out of nine, these photographs were taken with a view camera.

In every field, the versatile view camera is tremendously important. For instance, commercial photographers specializing in advertising photography find it indispensable. They compose and design their photograph right on the ground glass; or when the layout is furnished, it is traced on the ground glass—then the subject matter is photographed to conform exactly to the layout. In no other type of camera has the photographer such control over his composition.

If you look through the product photo files of the big names in the automotive industry . . . or any industrial plant that makes wide use of photography . . . you will find that view camera shots predominate.

The professional photographer finds more enjoyment and satisfaction in working with a view camera, because he knows that the swings and controls will enable him to produce the photograph exactly the way the customer wants it. Actually, view camera adjustments permit the lens to see like the human eye, for it permits the correction of image distortions inherent in lens design.

When you use it, you'll agree that you don't waste many shots with a CALUMET. Ordinarily, you can be sure and safe with just one.

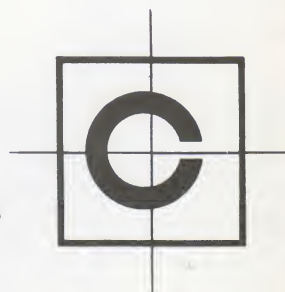
## TWO MODELS FROM WHICH TO CHOOSE

1. The STANDARD 4 x 5 CAMERA is designed for lenses having normal covering power over a 4 x 5 negative format, with a 16" bellows extension, making it suitable for all normal view camera work, including wide angle with moderate use of swings.
2. The LONG FOCUS 4 x 5 CAMERA is built with a 22" bellows, for those who prefer to use longer focal length lenses. (Not recommended for wide angle work.)

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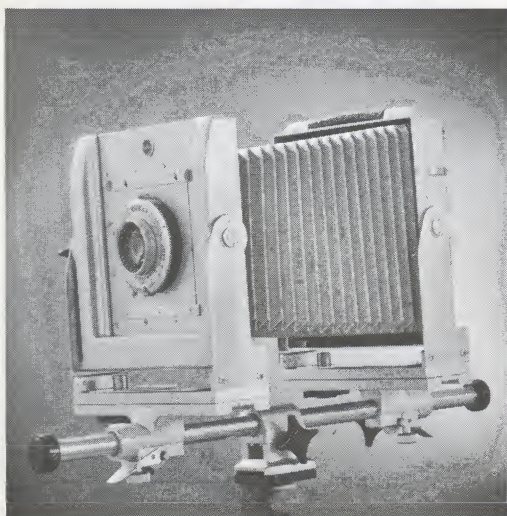




what will  
calumet's  
*all metal*  
4 x 5  
view cameras  
do for you?

... plenty!  
*they give you...*

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- **EXACT accurate photographs**

Because they compensate for distortion in the normal lens, you get a picture as your own eye sees it.

- **CONTROL of distortion**

Horizontal and vertical swings correct distorted perspective.

- **FASTER POSITIONING with rotating back**

Can be used at any position thruout a full 360° circle.

- **EASY, SPEEDY Operation**

Big simple knobs. Film can be changed quickly without disturbing camera position. Just a flip of a handle and the ground glass frame releases, and the back opens to receive the holder.

- **MORE VERSATILITY than any other camera**

Professionals prefer them for studio and location work; industrial, portrait, commercial.

- **PORTABLE, lightweight, yet rigid**

All metal frame construction will take years of rugged service.

- **INTERCHANGEABLE lens boards**

Metal boards large enough to handle even a 12 inch lens can be changed quickly, easily.

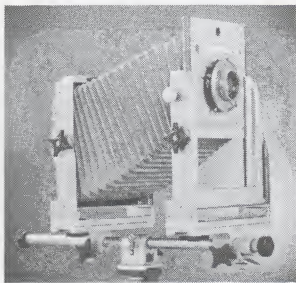
- 
1. Standard camera, truly universal, for all normal lenses.
  2. Long focus camera permits use of long focal length lenses.



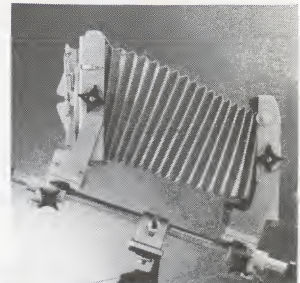
# 12 good reasons why →

calumet 4 x 5 view cameras

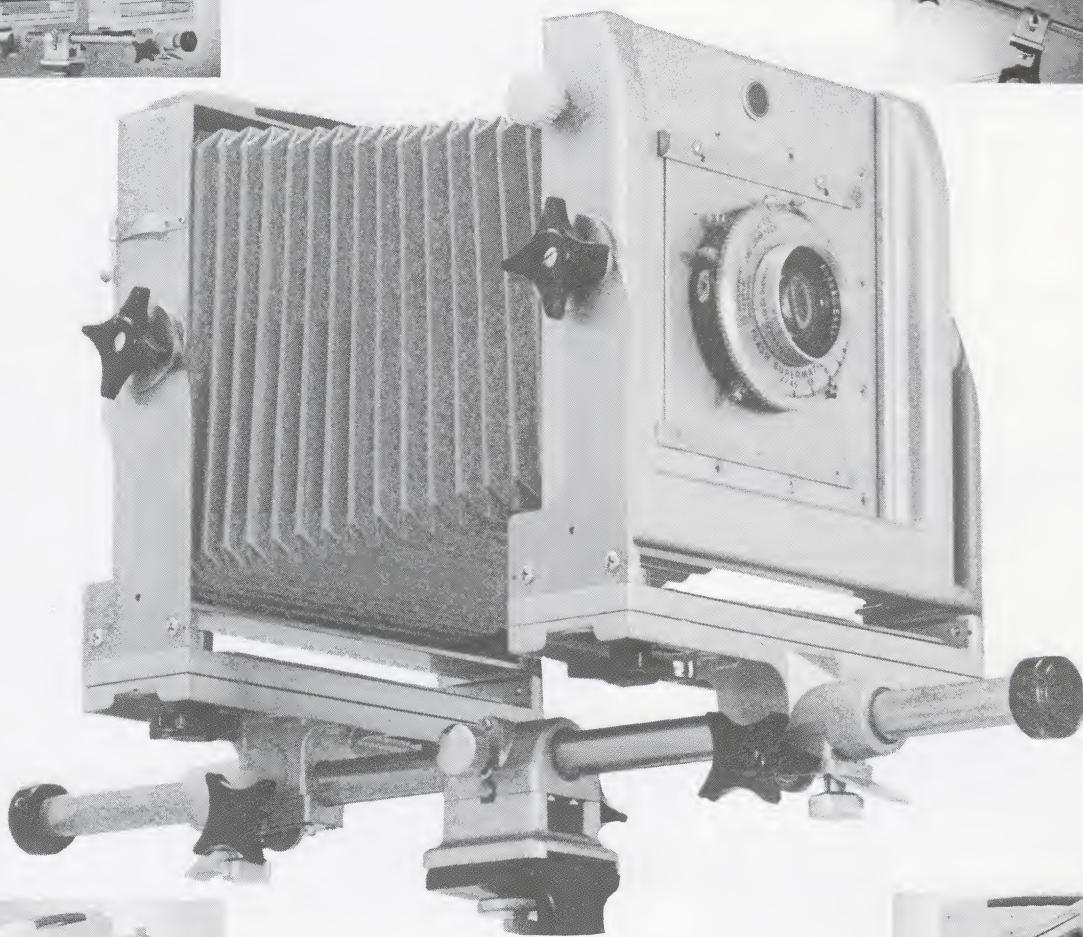
*Answer ALL your needs!*



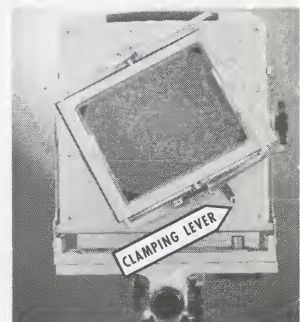
Rising, falling front to shoot something, above or below you.



Vertical swings to eliminate perspective distortion.



Spring back release gives easy, fast loading ... with no jarring, no change of camera position.



Revolving back (rotates in complete circle) allows for changes in orientation without changing tripod.



1. **VERTICAL SWINGS** (30 degrees) are pivoted on the optical axis. To correct distortion or increase depth of focus in vertical plane. Can be locked in any position by simple turn of knob. Spirit levels, mounted on top of camera back, indicate when camera is level.
2. **HORIZONTAL SWINGS**, both front and back, are pivoted on the optical axis. Can be swung 12 degrees in either direction for horizontal distortion correction, and for increasing depth of focus.
3. **HORIZONTAL SLIDE** makes it possible to move film and lens up to  $\frac{7}{8}$  " in either direction when obstruction prevents centering camera on subject. Both front and back have this adjustment.
4. **RIISING-FALLING** front is easily controlled, locks in any desired position. 3" rise, 1" fall. Used when it is desired to include more of the top of a tall building, or some other subject, or to eliminate excessive foreground, without tipping the camera.
5. **SMALL SIZE**, light weight, portable. 11½ " high, 8" wide. Modern techniques make enlargements of 4 x 5 sharp, satisfactory.
6. **ALUMINUM FRAME**, satin-finished, gives complete rigidity, has long life. Attractive, well-designed, it is built for years of service.
7. **REVOLVING BACK** enables camera to be used not only in vertical or horizontal positions, but at any point throughout a complete circle. This permits dramatization of an ordinary subject through the use of an unusual camera angle. It also enables you to make horizontal alignment without adjusting tripod.
8. **BELLOWS** are tough, grey material. Meet highest Government specifications.
9. **METAL LENS BOARDS** are interchangeable; pilot hole in center.
10. **EASY RELEASE** of ground glass frame. Big handle pulls down, tension is relieved, back opens to receive holder.
11. **BIG KNOBS**, easy to handle, simple to operate.
12. **FILM HOLDERS** designed to use standard film or plate holders as well as film pack adapters. The 4 x 5 proportions permit exact 2X enlargements to 8 x 10 and exact 4X enlargements to 16 x 20.

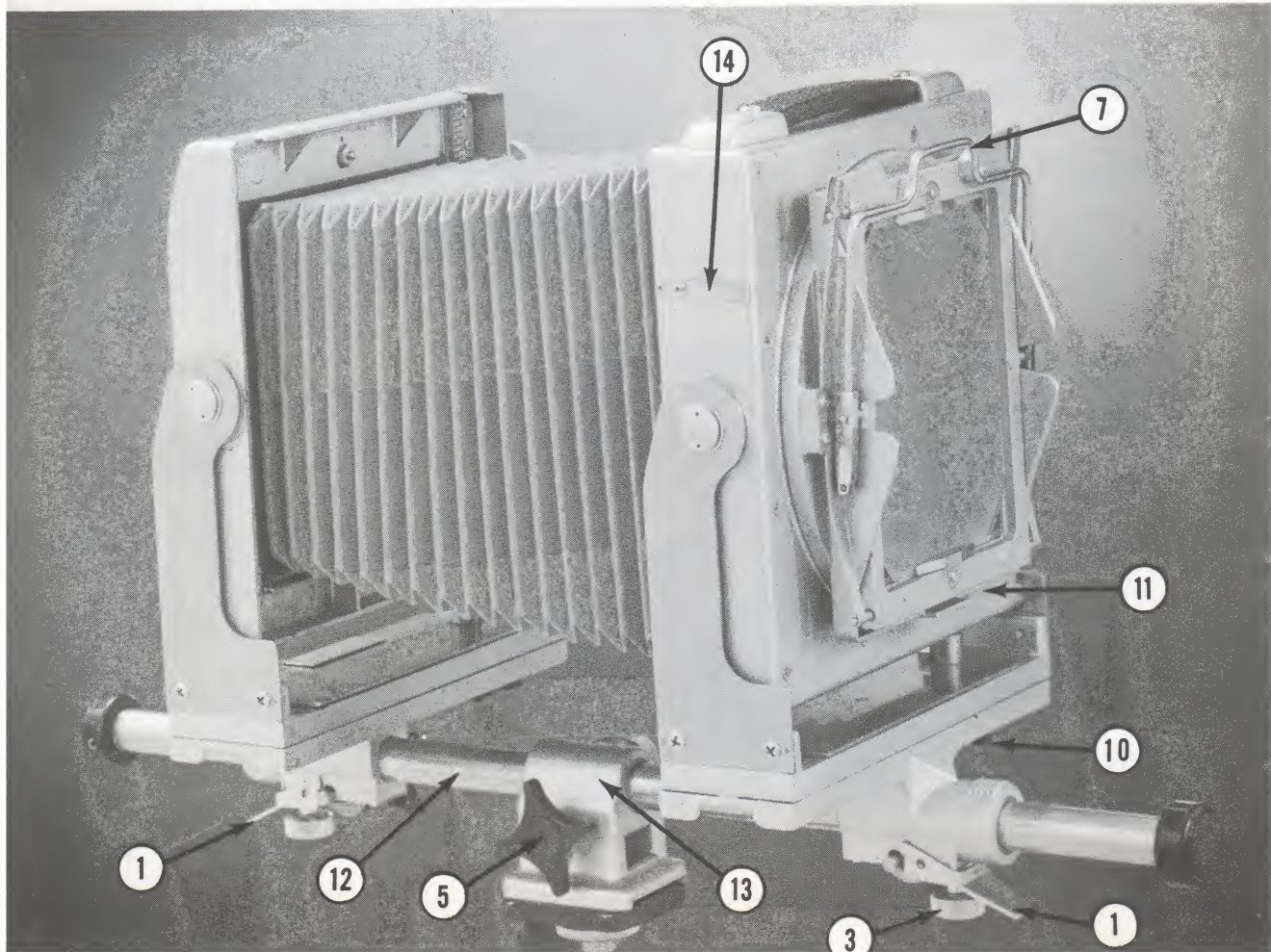
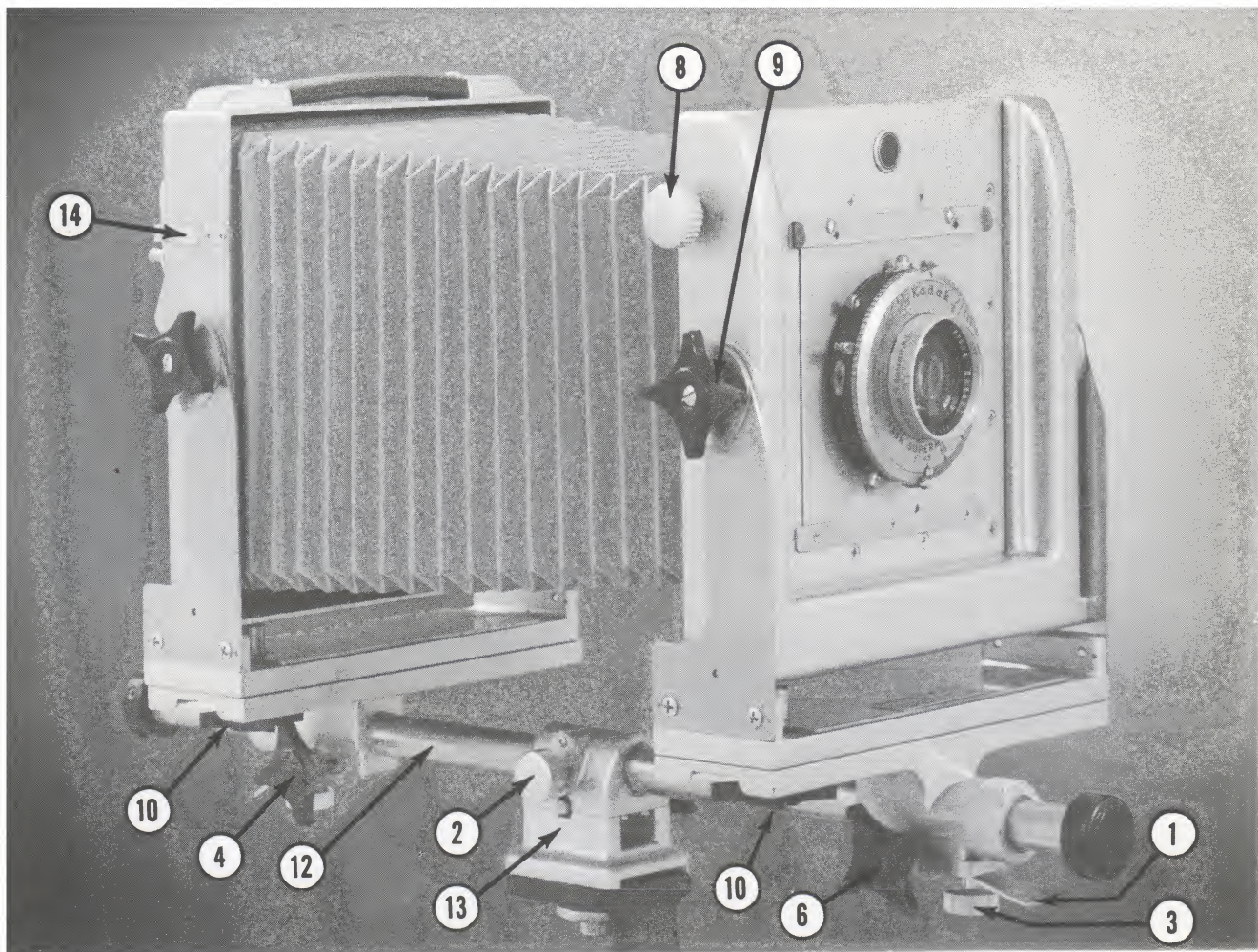
### SPECIFICATIONS — All Models

Vertical Swing (Front and Back)—30°	Minimum Extension—Lens board-to-film 3⅝ inches
Horizontal Swing (Front and Back)—12°	Lens Board—Standard 4-inch
Rising-Falling Front—Raised 3 inches, lowered 1 inch	Film Holders—Lock-rib type double film or plate holders and film pack adapter
Horizontal Slide (Front and Back)—⅞ inch	Dimensions—11¼ inches high
Revolving Back—360°	8 inches wide

### ADDITIONAL SPECIFICATIONS

Standard Camera	Long Focus Camera
Bellows draw—16 inches	Bellows draw—22 inches
Total length—20 inches	Total length—26 inches

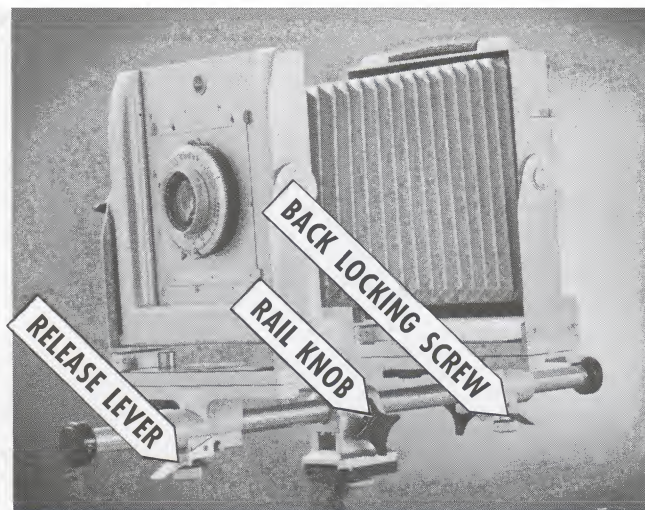






## parts

1. Release lever (focusing)
2. Center locking screw
3. Back locking screw
4. Back focusing knob
5. Rail knob
6. Front focusing knob
7. Frame release handle
8. Rising front knob
9. Vertical swing lock knob
10. Horizontal swing lock knob
11. Clamping lever (revolving back)
12. Monorail camera bed
13. Tripod block
14. Focusing cloth clips



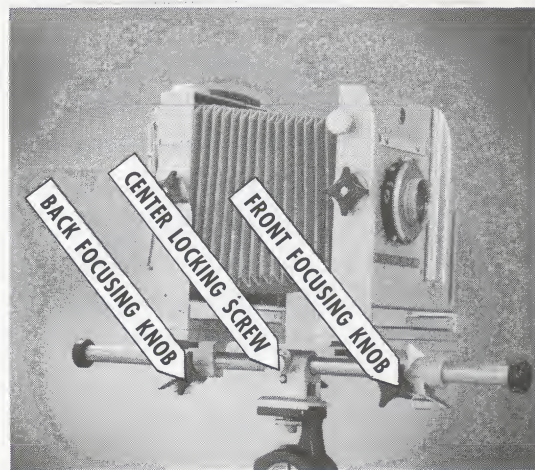
## focusing...

To move the front and back carriages on the monorail:

1. Loosen FRONT and BACK LOCKING SCREWS.
2. If quick movement is desired, lift up on FOCUSING KNOB RELEASE LEVER, and slide along rail.
3. For further adjustments, use FOCUSING KNOBS.

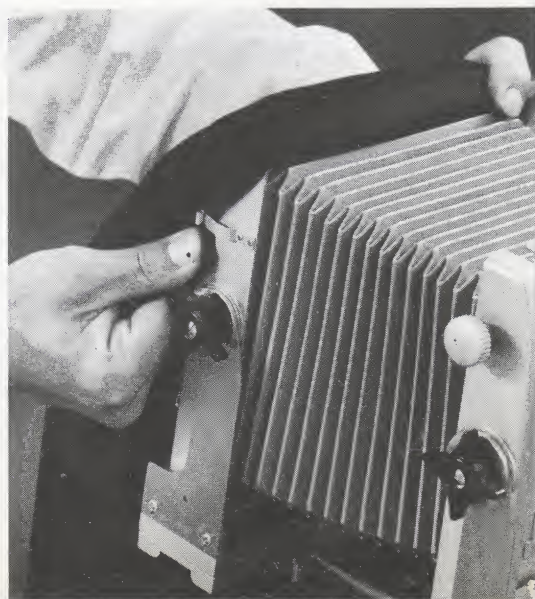
After the camera has been positioned to give approximate image size desired, slight changes in image size can be made by racking the camera and monorail on the tripod block. To do this:

1. Loosen the CENTER LOCKING SCREW.
2. Rack camera backward or forward with RAIL KNOB.
3. Tighten CENTER LOCKING SCREW after adjustment is made.

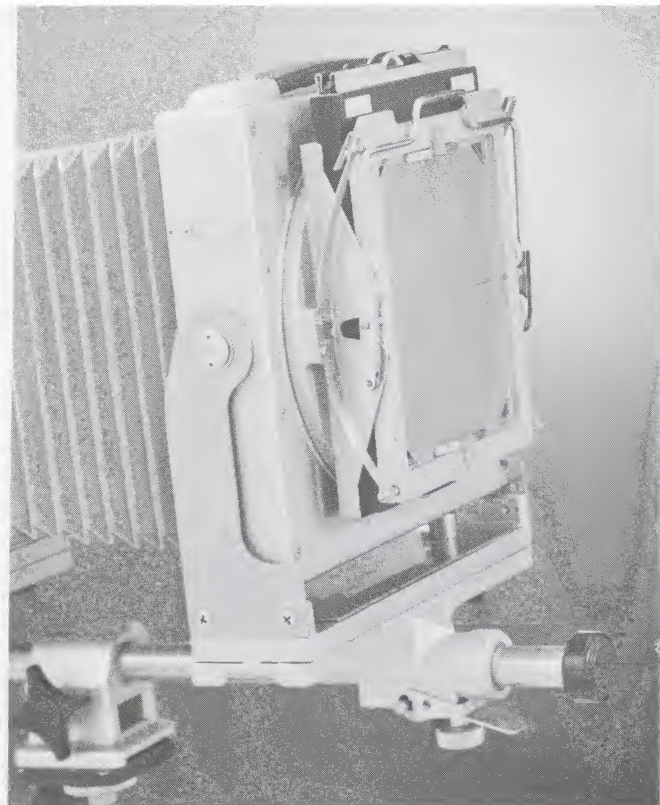
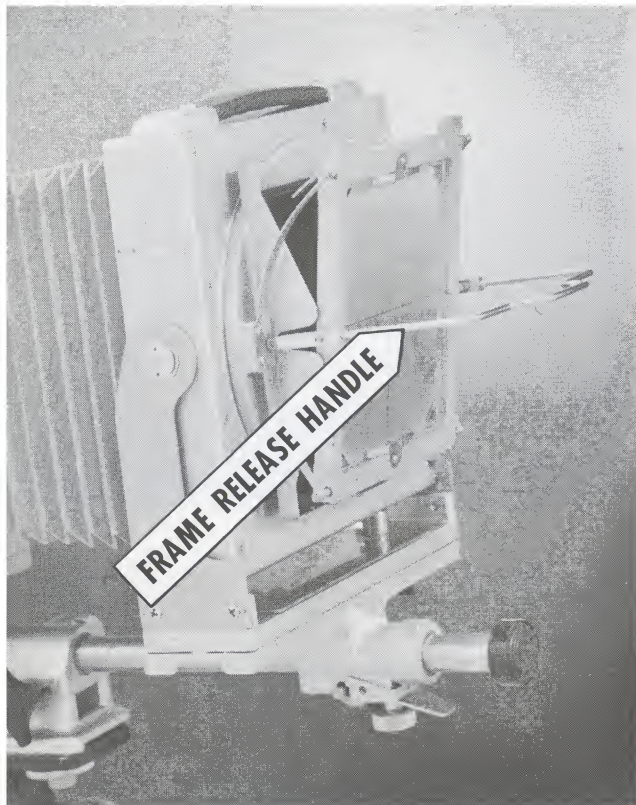


Focusing cloth clips are provided. To hold cloth securely:

1. Fold edge of cloth.
2. Place over back frame, hold taut against bellows; slip descending folds into FOCUSING CLIPS.







## loading the camera . . .

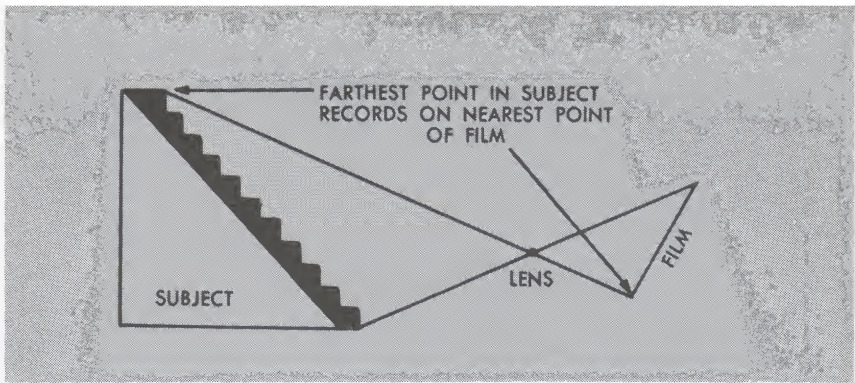
The camera has an improved method of releasing the ground glass frame which makes it possible to remove or insert the film holder without disturbing the camera position:

- (1) Pull out on the FRAME RELEASE HANDLE till it extends at right angles to back and small rollers rest in the depressions. Insert film holder.
- (2) See that bottom of holder rests on protruding stops. Release the frame release handle.
- (3) Wait until lens has been set for exposure before withdrawing holder slide.

## functions of the swings . . .

The swings, horizontal slide, rising and falling front, and rotating film back give the Calumet 4 x 5 View Camera the versatility desired in a commercial camera. The purpose of these swings is to position the lens and film plane so that the image will appear as desired by the photographer. This may be a correction of converging or diverging lines or it may be a deliberate distortion to fit the mood of the picture. It may be the elimination of foreground or it may be an image running diagonally across the film.





The swing (horizontal or vertical) of the camera back is used to control the line relationships of the subject—converging or diverging parallel lines. As long as the camera back is parallel to the subject plane, the image shape is similar to the subject shape.

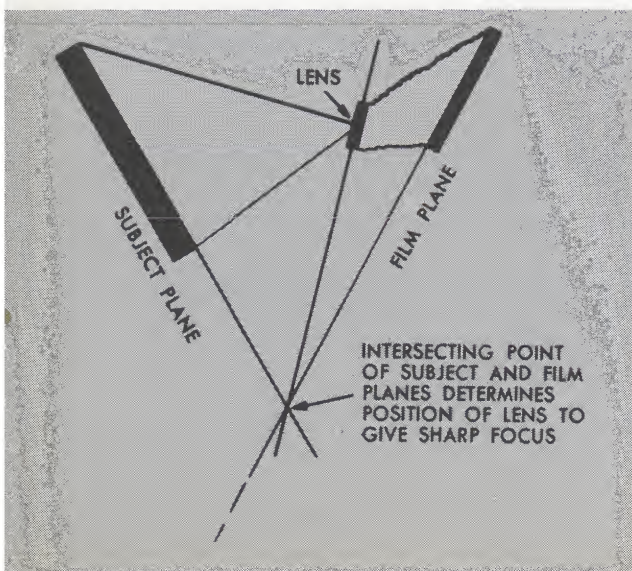
Sometimes the control of line relationships must be sacrificed to obtain sharp focus, particularly when the subject has considerable depth and is at an angle to the camera. When this is the case, the swing of the camera back must be such that the farthest point in the subject will be recorded on the nearest point on the film. This swing does not prevent line correction in the remainder of the subject (vertical or horizontal), since the back can be swung or tilted to a position which is parallel to that plane.

The function of the swinging, tilting camera front is to swing the lens to place the plane of sharp focus in the correct relationship to the subject. Good photographic lenses are constructed to give a sharp image of a subject plane in a flat field, and for every subject plane there is a corresponding sharp image plane. The angle of the lens to produce sharp focus (in relation to subject and film planes) is shown in the illustration.

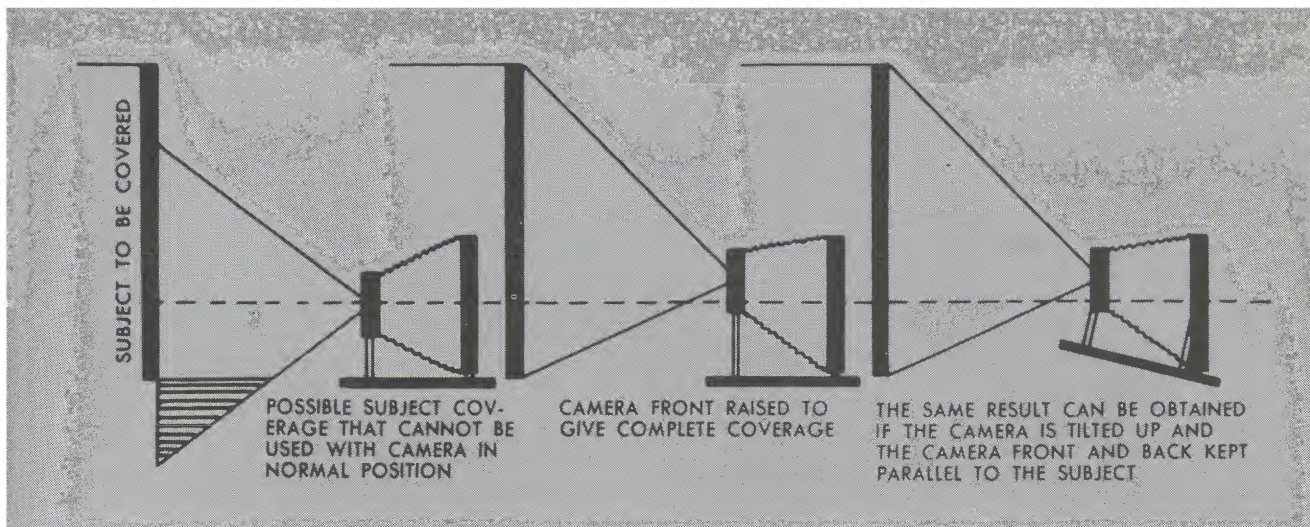
The rising and falling front is simply another means of controlling subject, lens, and film relationship. This application can best be shown by an example.

By use of the rising or falling front, the lens can be moved above or below the optical axis without disturbing the parallel relationship

between subject plane and film plane. If the camera is above the subject, the same results can be obtained by lowering the front. However, since the adjustment possible with the falling front is limited, the camera bed is usually tilted down and the camera front and back are tilted to a position vertical to the subject plane.

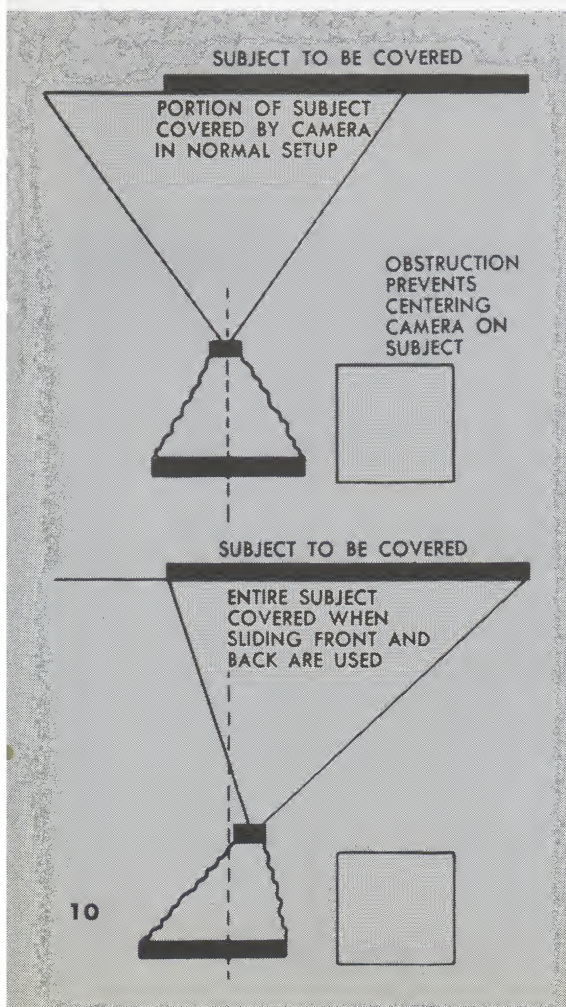






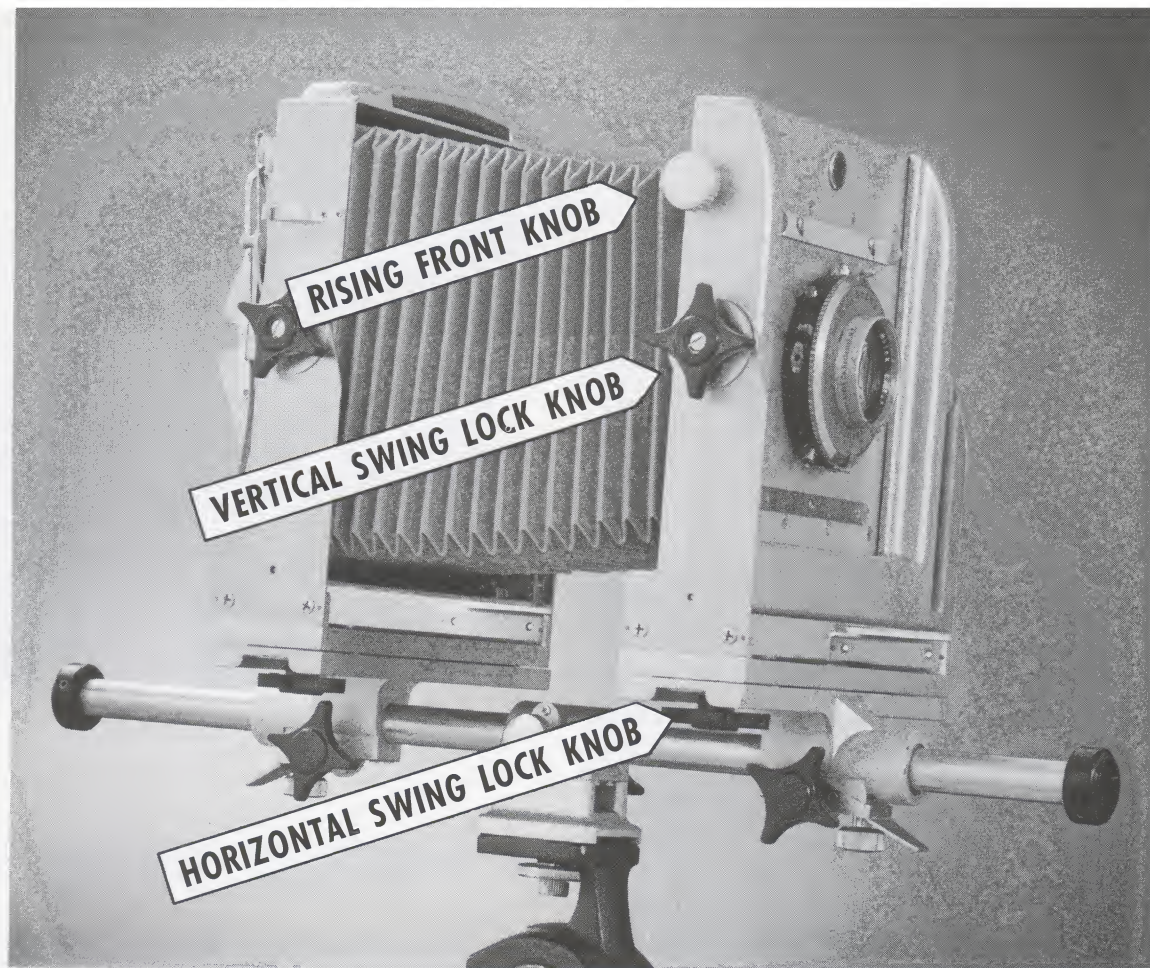
Similar results are accomplished horizontally by using the horizontal slide of the front and rear carriages; only in this case, instead of moving only the lens, the lens and back are moved in opposite directions to provide greater movement.

The principal use of the revolving back is to locate the film in the correct position to provide subject coverage; that is, horizontal or vertical. It is often used to make slight corrections of image alignment of the film to save tipping the camera. It can also be used to orient the subject in any position on the film, and is often employed for "glamour shots."



An excellent way to become familiar with the swings is to set up the camera and experiment, actually watching the results on the ground glass.





## how to operate swings-slides-rises

**CAUTION:** Knobs lock with a simple turn. Do not tighten excessively.

**TO SWING VERTICALLY** (front and back): loosen the VERTICAL SWING LOCK KNOB, tilt the camera.

**TO SWING HORIZONTALLY** (front and back): loosen HORIZONTAL SWING LOCK KNOB, pivot front or back of camera. Spring-pressed ball catches indicate normal positions on both horizontal and vertical swings.

**Horizontal Slide** (front and back): loosen horizontal swing lock knob, slide carriage horizontally. Tighten lock knob when carriage is correctly located.

**Rising and Falling Front:** To raise front, press in and turn RISING FRONT KNOB counter clockwise. To lower, press in and turn knob clockwise. Front stays in position when you release knob.

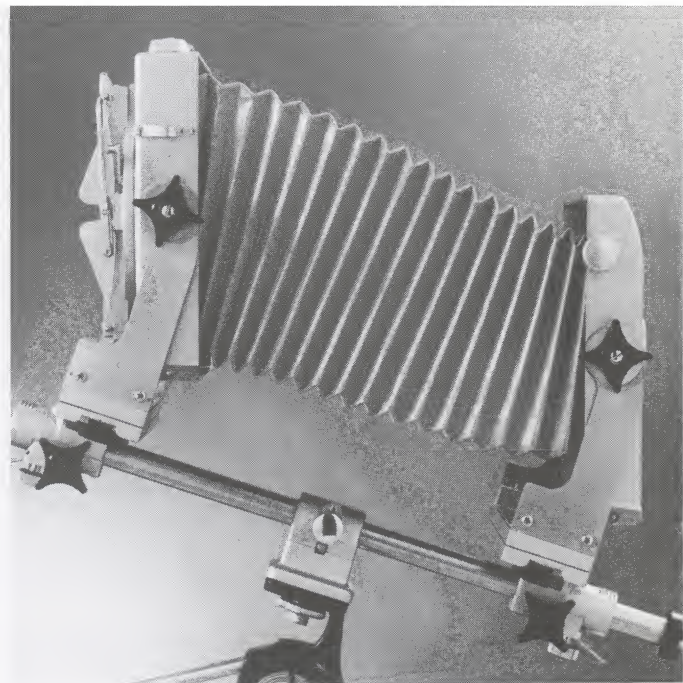
**Rotating Back:** Release CLAMPING LEVER. Turn back to position you want. Can be locked at any point with clamping lever. Spring pressed ball catches show normal vertical and horizontal position.





The above photograph shows cabinet photographed straight on—no adjustments.

The photo below shows correction of vertical lines with proper vertical swing adjustment.



## vertical swing of camera back (tilt)

This movement is used to correct converging or diverging vertical lines.

For instance, if you are shooting something above you, tilt the camera upward till you see the entire subject in the ground glass. Then return the tilting back and front to a vertical position parallel to the subject.

If you are shooting something below you, such as furniture, food, etc., point the camera downward, then tilt back to a vertical position so that it is parallel to the front vertical plane of the subject.

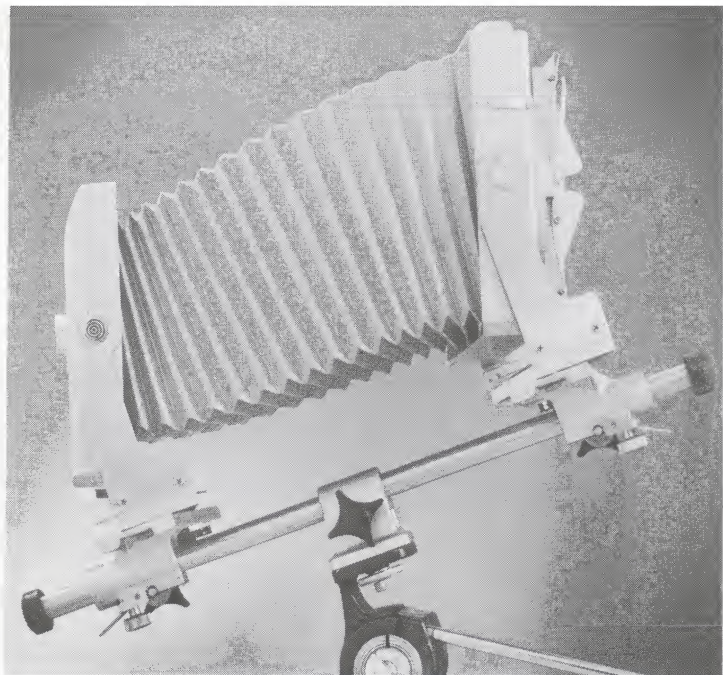
As long as the camera back is parallel to the subject plane, the image shape is similar to the subject shape.

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Horizontal lines can be corrected in the same manner by using the horizontal swings.



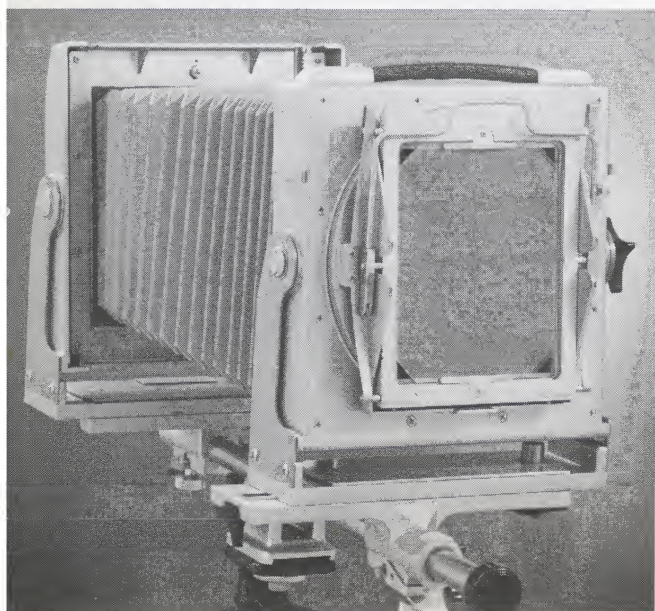
## combination of vertical and horizontal swing



There may be distortion in both vertical and horizontal lines. This is often the case when shooting up or down at an object showing two sides. In such a case, you use both horizontal and vertical swings until your film-plane is parallel to both the vertical and horizontal subject planes.

## horizontal slide

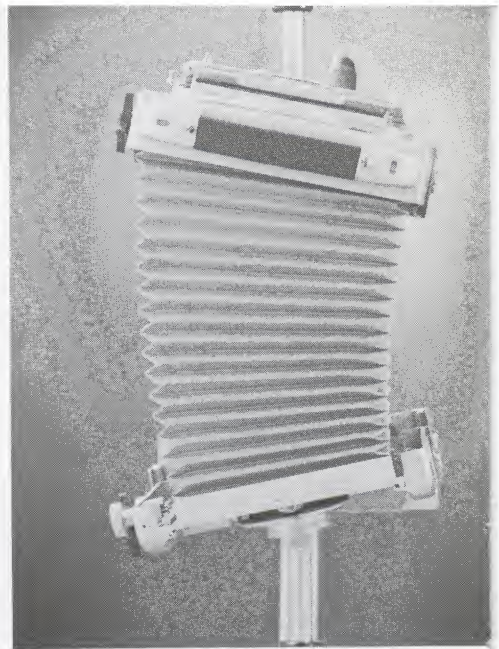
Use this primarily when an obstruction prevents your centering the camera on the subject. Without moving the tripod, you can take a photograph as if your camera were located in the center of the subject . . . and still get around the obstruction.





## swing back used to increase depth of field

To get all parts of the subject in sharp focus, in instances where there is considerable depth in the subject: Tilt the back so that the part of the subject farthest from the camera is recorded on the side of the film nearest the subject. Distortion may result from this method, so it should be used with discretion, and after experimentation.



Depth of field of lens is insufficient to bring entire subject in focus.



Use of swing back sharpens the entire picture.

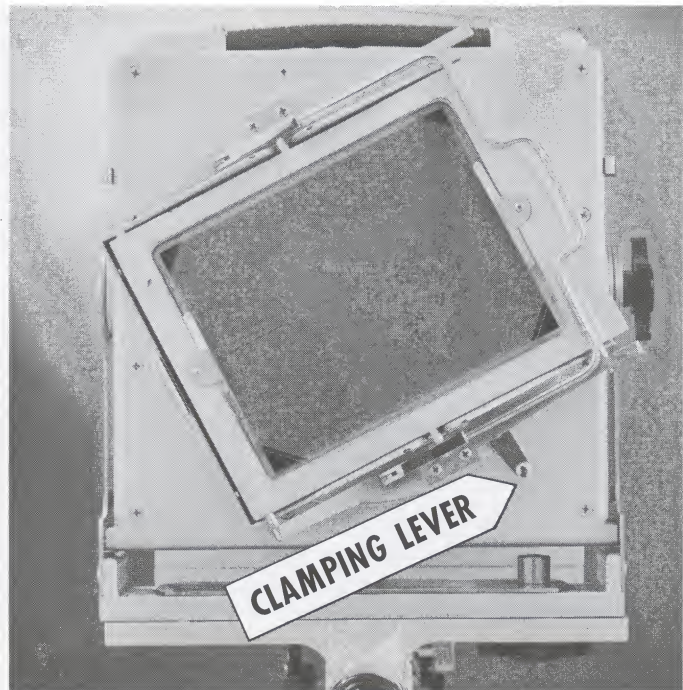


## Rotating back

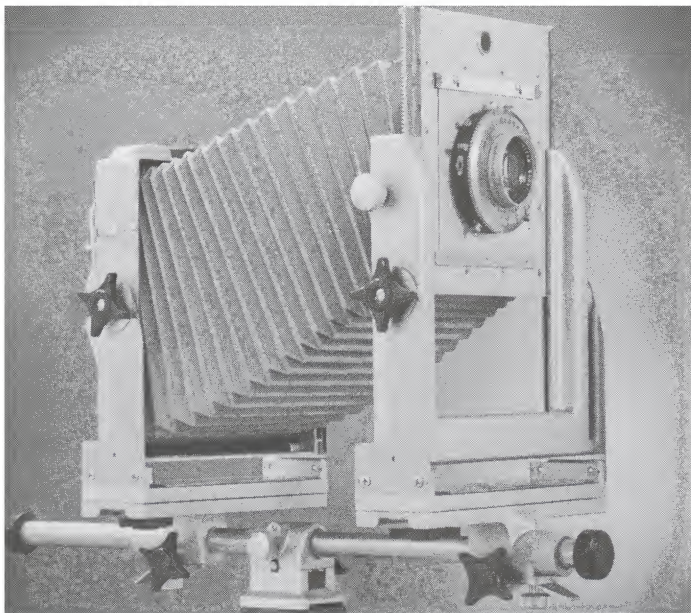
You can make slight changes in orientation without moving the tripod . . . just by turning the revolving back.

If you are working with a long, narrow subject, you can add almost an inch to the image size. This is done by turning the back so that you use the *diagonal* of the film.

It makes it possible, too, for you to shoot from unusual and interesting angles.







## rising-falling front



Photographed straight on too much foreground—top of building cut off.

This feature enables you to have the film plane parallel to the subject plane when you photograph at an upward angle. (Such as a tall building.)

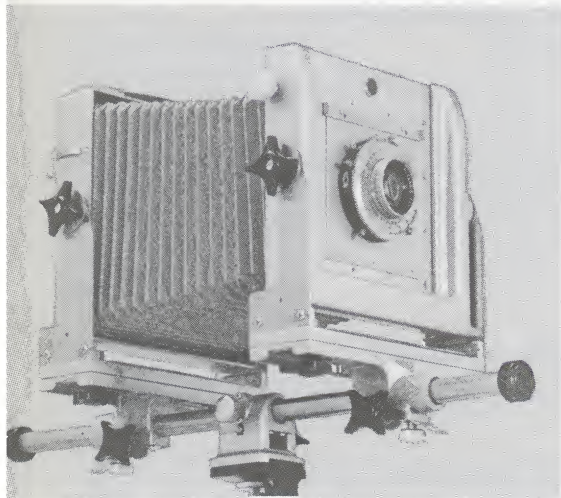
Remember to keep the camera level so that the film plane is still parallel to the vertical plane.



Rising front eliminated foreground—entire building is included in picture.



# calumet 4 x 5 view cameras



## **MODEL CC-400—CALUMET 4 x 5 VIEW CAMERA, STANDARD MODEL**

**16" bellows extension**

**4" x 4" lens board**

**Revolving back**

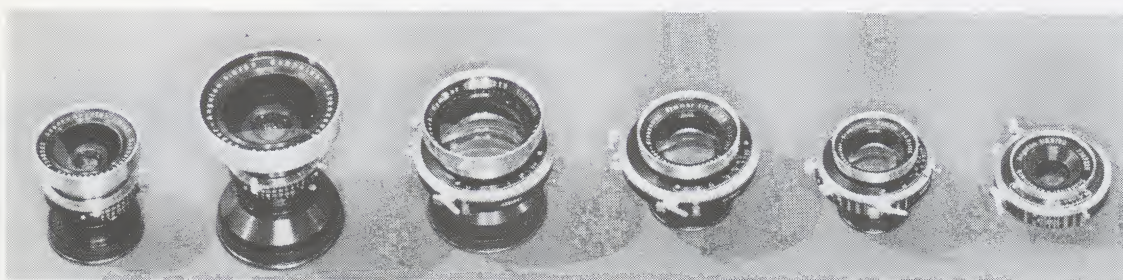
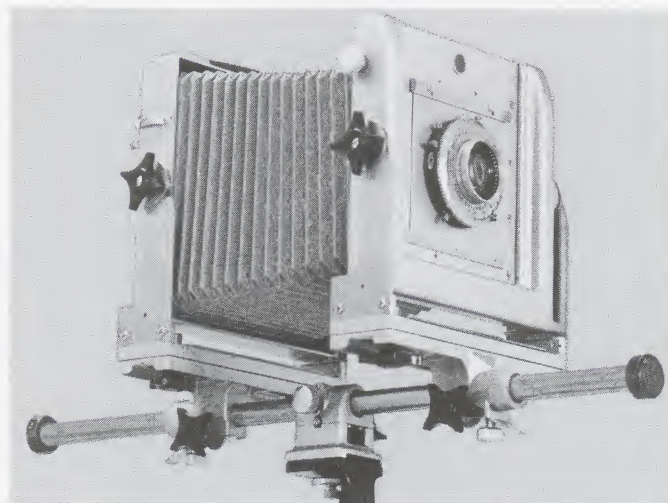
This camera is the most versatile view camera. It is designed for lenses having normal covering power over a 4 x 5 negative. It is suitable for all view camera work, including wide angle work where extreme swings are not required.

## **MODEL CC-401—CALUMET 4 x 5 VIEW CAMERA, LONG FOCUS MODEL**

**22" bellows extension**

**4" x 4" lens board**

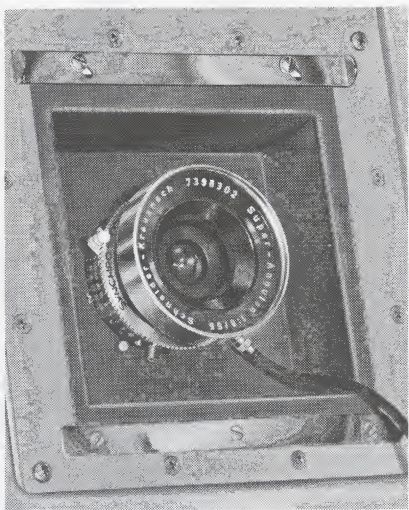
Revolving back. For those who prefer to use long focal length lenses.



## **lenses and accessories**

We stock both normal and wide angle lenses in various focal lengths, and offer these lenses in attractive camera and lens combination deals. See our current price list for recommendations and lens prices.





#### **MODEL CC-419 SUPER RECESSED LENS BOARD**

The Super Recessed lens board brings lenses as short as the 65mm Super Angulon into focus for extreme wide angle photography. It permits maximum swings and tilts with 90mm wide angle lenses. The board is made of die cast aluminum with a matte black finish.

#### **MODEL CC-420—STANDARD LENS BOARD**

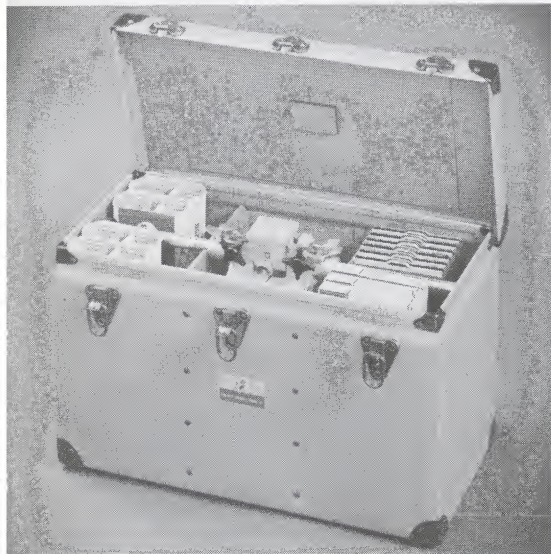
4"x4" Metal

#### **MODEL CC-425 POLAROID-LAND FILM HOLDER 4x5"**

Print and negative with Polaroid 4x5" pack. Excellent for checking composition and exposure of expensive color films. Negative material can be printed in conventional manner.

#### **MODEL CC-422—4x5 DE LUXE CUT FILM HOLDERS**

Double holders, strong and thin. Cast aluminum frame. Light-tight, opaque to infra-red and ultra-violet and all waves of light. Non-static, white data tabs. Finest available.



#### **MODEL CC-410—CARRYING CASE, STANDARD CAMERA (see illustration)**

Made of tough gray fiber, reinforced at all corners. Partitions to accommodate the camera and a full range of holders and accessories. Extremely durable and beautiful in appearance. Size 10"x21 $\frac{3}{4}$ "x12 $\frac{1}{2}$ ".

#### **MODEL CC-411—CARRYING CASE, LONG FOCUS CAMERA**

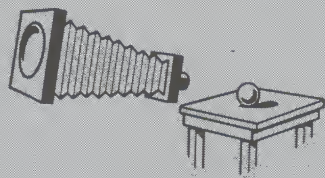
Identical in construction to Model CC-410, except that the length of the case is 27 $\frac{1}{2}$ ".



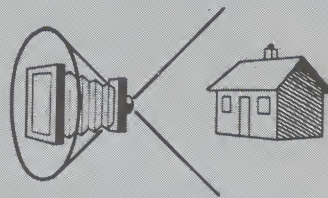
# so easy to adjust...

and the adjustments assure pictures as you want them

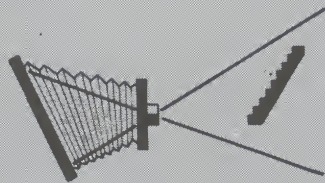
Here is a brief summary:



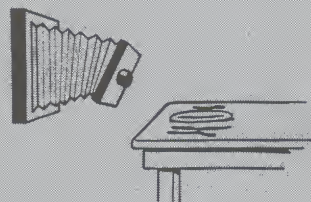
A long bellows draw is required for very long focus lenses, or for large images of small objects.



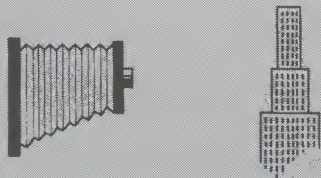
The full use of view camera adjustments requires a lens with adequate covering power.



The swing back (horizontal and vertical) (a) is used to rectify image distortion or (b) to adjust the focal plane to the depth requirements of the subject.



The tilting lens (horizontal and vertical) positions lens so that plane of sharp focus coincides with the principal plane of the subject.

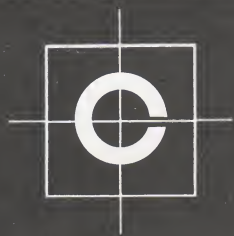
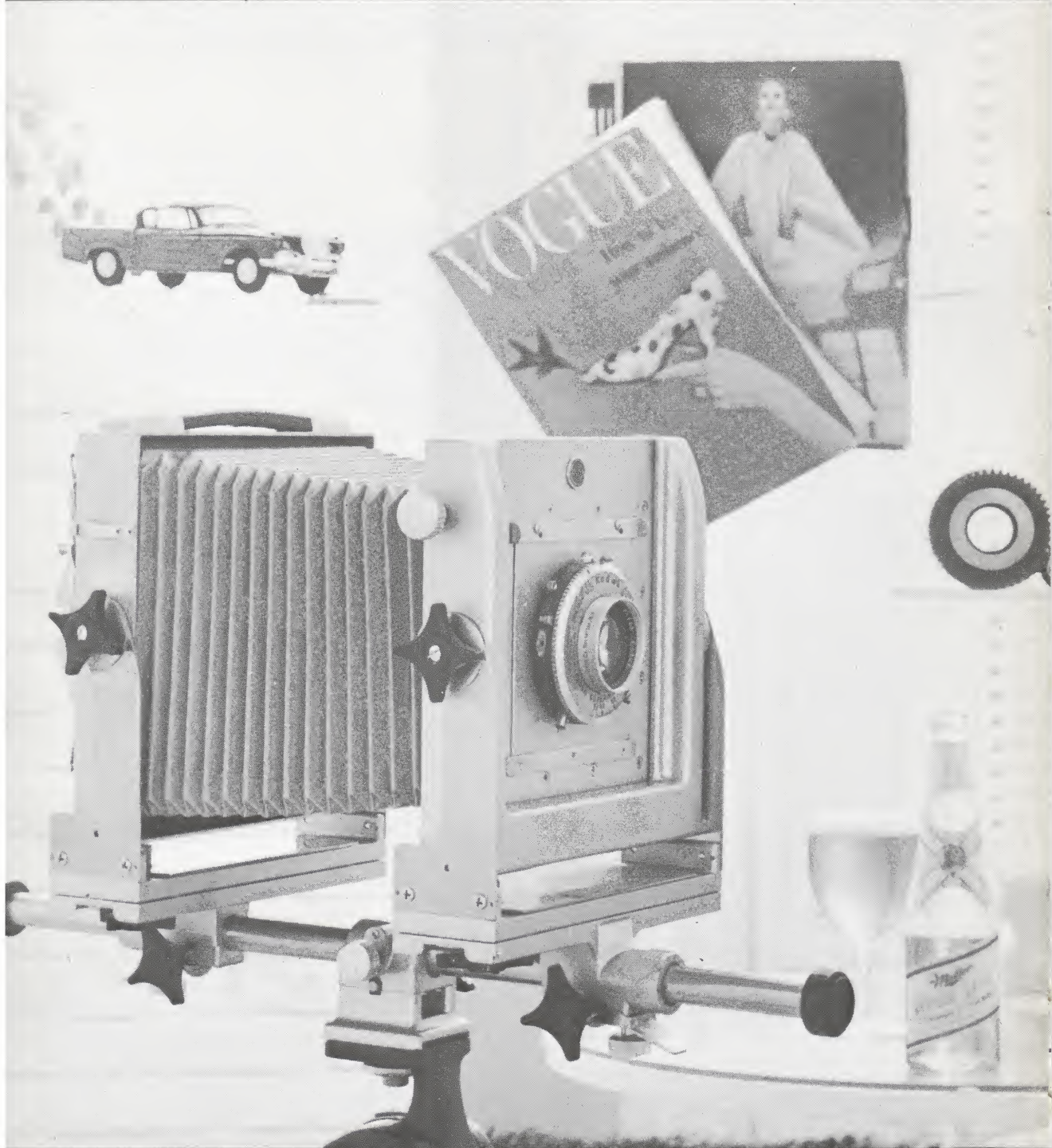


The rising and falling front (and/or horizontal slide) secures correct lens and film relationship for cases when the subject is not on the camera axis.



The rotating back rotates the negative as desired to fit the placement of the subject without the necessity of tilting the camera.





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